



A STUDY OF IMPACT OF MINDFULNESS PRACTICES ON SCHOOL STUDENTS' MENTAL HEALTH AND ACADEMIC SUCCESS IN INDIA

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ABSTRACT

With the help of this systematic review, we want to collect and examine empirical evidence about the positive effects that mindfulness programs in schools have on the mental health of kids as well as their academic achievement. Mindfulness, which is the psychological process of bringing one's attention to events that are occurring in the present moment, has been proposed as a valuable exercise for improving cognitive function, emotional regulation, and stress tolerance. The purpose of implementing mindfulness programs in schools is to assist children in developing into well-rounded individuals, and this trend is expected to continue. The purpose of this study is to combine data from randomised controlled trials (RCTs), quasi-experimental investigations, and qualitative research in order to evaluate the effectiveness of different interventions on student groups. In particular, we are interested in the ways in which mindfulness treatments influence the way in which children's anxiety, attention span, school behaviour, self-esteem, and academic achievement are affected. When analysing the differences in program performance, the assessment takes into account a number of different characteristics, including the participants' beginning mental health status, their age, and their socioeconomic situation. In addition, there are challenges associated with the execution, openness from both instructors and students, and the feasibility of the program benefits over the long run respectively. By providing a comprehensive review of the research that has already been conducted, the purpose of this study is to educate teachers, legislators, and professionals in the field of mental health on the possibilities of mindfulness programs in schools. Furthermore, it tries to identify gaps in the existing literature that may have an impact on further research.

Keywords: mindfulness: school children, mental health, academic performance, systematic review, educational interventions

INTRODUCTION

Most kids report feeling quite stressed out, and this is due in large part to the many sources of stress in their lives, including but not limited to: academic pressure at school, poverty, violence, and other interpersonal and life pressures. A person's quality of life and academic performance may take a hit if schoolwork became an integral part of their everyday routine. Additionally, due to the increased danger of anxiety, loneliness, and stress, the welfare of students has emerged as a global issue. In conclusion, students' mental health suffers greatly as a result of the aforementioned pressures, which might even cause psychiatric problems and low academic achievement. There has been some success in using mindfulness meditation to boost students' physical and mental health, which in turn has improved their academic performance. Clinical research has shown that practicing mindfulness meditation—which

entails nonjudgmental concentration on the present moment—can have positive effects on mental health. Students' social skills and academic performance may be improved, and it can also strengthen people's attention, memory, and critical awareness. (Vorontsova-Wenger, O., Ghisletta, P., Ababkov, V., & Barisnikov, K. 2021).

The concept of mindfulness is "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally". Connecting with the present moment and growing awareness of one's surroundings and inner thoughts enables individuals to remember and reconstruct their experiences via mindfulness meditation (MM) practice, which employs meditation to acquire mindfulness. As the first mindfulness-based stress reduction (MBSR) program, it combined yoga with mindfulness practices (such as walking or eating) and ran for eight weeks with intense group sessions and homework. The eight-week mindfulness-based cognitive therapy (MBCT) sessions were based on the MBSR and were designed to help people with depression. The sessions included breathing exercises and meditation. Attention, memory, and executive function may all benefit by MM.

Practices including sitting meditation, breathing exercises, and mindfulness-based intervention (MBI) have shown a favorable correlation with academic achievement. Higher test scores and enhanced learning capacities are indicators of improved academic performance (AP). Third through fifth graders' test results in reading and arithmetic increased after participating in mindfulness exercises, according to Campbell (2021). Philosophy, Spanish, history, and the acquisition of other languages are all favourably impacted by meditation training, according to research. The GRE reading comprehension section has also been shown to benefit from MM. Most of the beneficial effects of MM on AP occur in the brain. Ensuring students' social and emotional well-being via improved self-regulation and resilience leads to improved academic achievement. Mindfulness training enhances focus and decreases distractions during difficult activities, according to one research.

The field known as information processing theory (IPT) examines how humans take in, analyze, organize, interpret, store, retrieve, and use data. From the vantage point of a memory system, information processing theory explains learning and views information as the fundamental medium of learning. (Van Gordon, W., Shonin, E., Sumich, A., Sundin, E. C., & Griffiths, M. D. 2014)

The majority of the prior research used experimental methods to demonstrate that MM affects AP, and it used various measures and techniques to identify potential mediating factors. Theoretical models of information processing also give substantial weight to a number of crucial mediating factors in this context, including memory and attention. Cognitive psychologists have come a long way in the last few decades in their study of human thought, reasoning, and learning, thanks to advancements in information processing models. Now let's examine the impact of MM on AP from the viewpoint of information processing theory. Both the process and mechanism of effect may be better explained, and the intermediate variables from earlier empirical investigations can be organically correlated, thanks to this method. First, information storage; second, cognitive process; and third, executive cognition are the three primary components of the information processing model.

A place where data is kept is called an information storage facility. Sensory memory, processor memory, and long-term memory are the three main components of memory that store information. Working memory (WM), a similar notion to short-term memory, and short-term memory (TM) were the primary topics of this section. The cognitive process is defined as an activity in the mind that emphasizes the transfer of information from one type of memory to another within the framework of the IPT model.

Several elements, including focus, perception, and repetition, are involved in this process. Attention selects relevant information, perception transforms it into meaningful data, and repetition moves it from processor memory to long-term memory as part of the cognitive process. The learning process is complicated and dynamic, as Schunk (2016) highlights; this complexity is largely attributable to executive cognition, and the process is dynamic and complex. An individual's ability to reflect on and understand the merits and shortcomings of their own thought processes and learning behaviors is known as executive cognition (EC). In a nutshell, executive cognition is the ability to plan, make decisions, and keep tabs on one's own behavior at a high level. Planning, decision-making, emotional self-regulation, and psychological flexibility are all components of executive function (EF), which is a kind of high-level cognition. The terms EF and EC are conceptually and semantically equivalent in this setting. (Baranski, M., & Was, C. A. (2019).

In spite of the abundance of evidence linking mindfulness meditation to improved academic achievement, the available research has been disjointed and lacks a comprehensive evaluation. So, this research will use the three components of the information process theory—cognitive process, information storage, and executive cognition—to characterize the pathways between mindfulness mediation and academic performance in three sections: attention, memory, and metacognitive ability. According to the theory,

Concept of the Mental Health

Psychological wellness is "a condition of mental well-being that enables people to cope with the stresses of life, realise their abilities, learn and work well, and contribute to their community". It includes our mental, emotional, and social well-being. An individual's behavior, emotions, and thoughts are impacted by it. Our stress levels, social interactions, and ability to make good decisions are all influenced by this. According to the Centers for Disease Control and Prevention (2024), mental health is essential throughout a person's life, from infancy to maturity. An individual's mental health can be greatly affected by the amount of social support they receive from their family and peers. Overall, health can be defined in three ways: as the absence of disease, as an organism's condition that allows it to perform all of its functions, or as a state of equilibrium both inside oneself and with one's physical and social environment. The importance of education in managing students' mental health. WHO also places a focus on initiatives that may be implemented in schools with the aim of improving students' mental health. The incidence of mental health issues including anxiety and depression among adolescents has risen by 70% in the last quarter of a century. In 2016, a poll was conducted by Parent Zone that found that 93% of educators had seen an increase in the occurrence of mental illness among children and teenagers, with 90% of those educators believing that the issues were becoming worse. 62% of educators addressed student mental health concerns monthly, with 20% doing so more often. Studies show that teaching young people about positive mental health at an early age is important because it impacts later stages of life. Adolescents' mental health is influenced by school climate, which includes factors like peer connectedness, school safety, and academic environment. Building connections with others and fostering their emotional and psychological health are two of the most important factors in creating a healthy society. Action is required to alleviate the mental health burden on children and adolescents, and promoting mental health is a global concern. (Kabat-Zinn, J. 2007).

The Mechanism of Mindfulness Meditation

Attention-Cognitive Process One of the most important building blocks of any kind of learning is the ability to concentrate; for example, listening courses have a profound effect on students' reflexes and aid in their ability to concentrate on important information. The ability to focus one's mental resources on what's really important, while blocking out extraneous information or mental states like worry or poor mood, is known as attention. Selective arousal, filtering, discarding, and suppression of necessary information for certain stimuli are all parts of the attention process.

Numerous studies have used MM with students via a series of breath exercises. By keeping track of their inner monologue, students were able to gain insight and WM, which in turn helped them relax. Furthermore, research has shown that MM training may help students focus less on negative self-evaluations and self-deprecation, as well as other unpleasant thoughts and contemplations, which can lead to a reduction in AP. Students' social skills and AP are both improved by MM's anxiety-reducing effects. Students' learning and test scores are both improved when they are able to control their attention so that they can stay alert for longer and less affected by distractions. (Biber, D. D. 2020).

It is believed that the internal mechanism connecting students' attention and attentional control theory will be explained. academic performance. Processing efficiency is more severely affected by anxiety than operational performance, according to attention control theory, since it harms the goal-driven attention system and disrupts the inhibition and transfer functions of the central executive system. In addition, worrying and negative thoughts can take up mental space that could be better used for processing information and completing complicated tasks, particularly during performance. This can disrupt the central executive system's transfer and inhibition functions, which is worse for processing efficiency than operational performance

To improve AP, it is necessary to decrease worry and unpleasant thoughts so that more attention and working memory may be directed to activities that directly affect academic achievement. Data Retention and Access studied 33 individuals who had been MM practitioners for an average of six years and compared them to a control group of non-meditators. Free recall and hint recall, two components of short-term memory, were the only ones to exhibit an improvement. Both working memory (WM) and working memory capacity (WMC) have been shown to be improved with MM practice. One way to improve WM during MM practice is to pay more attention, especially to the quality of the information and the decision-making processes that follow. Concerning the neuropsychological basis for the amelioration of WM and WMC by mindfulness meditation, it has been shown that mindfulness training may amplify the hippocampus, a brain area linked to WM. On top of that, MM has been shown to alleviate anxiety, which might explain how it improves STM, as anxiety can impair the central executive processes.

The enhancement of certain academic domains or cognitive capacities is indicative of WM's effect on AP. Results show a strong correlation between WM and mathematical proficiency. Factors such as age, skill level, and the presentation of mathematical problems impact this association, but research has shown that WM training is favorably connected with mathematical ability, especially in children and children with arithmetic challenges. In order to improve one's mathematical abilities, the visual-spatial WM is essential. fluid intelligence, which relies on visuospatial WM, mediates the influence of WM on mathematical performance. In addition, research has shown that WM may help kids become better readers. To better understand what one reads, auditory-verbal WM is crucial. In addition, many developmental learning problems, such as ADHD, dyslexia, and particular language impairment, are

associated with impaired working memory (WM) [32]. Reading difficulties in children with attention deficit hyperactivity disorder (ADHD) are associated with working memory deficits. Consequently, AP and ADHD symptoms may be alleviated with training that enhances WM.

Executive Cognition (Executive Function)

Inhibition, working memory update, and transfer are necessary components that are interrelated, and certain complicated EF activities may involve some combination and coordination of these EF components. The nature of the structure of executive function (EF) has been the subject of discussion; nonetheless, the theoretical framework that is largely recognized includes these components as fundamental components. (Adam, M. 2023).

Previous research has shown that meditation has the potential to be helpful for EF in either the short or long term. These studies have also demonstrated that there are considerable favorable benefits of meditation on EF. There is a possibility that MM might enhance executive function; however, it is yet uncertain whether or not there is a meaningful impact on all executive functions. An investigation into the unique advantages of MM on each subfunction of EF. However, the nature of these effects was complicated, and the conclusions were only partly verified. The issue of whether or not MM has an impact on EF and the manner in which it has a final influence on AP via EF is more important than the question of whether or not MM has an effect on AP. Despite the fact that it was still unclear if there was a substantial influence on all of the sub-functions of EF, as can be observed from prior research, and other studies produced the opposite results (for example, inhibition), the findings of this study are clear. On the other hand, there is no question that MM has the potential to have a positive impact on EF. EF is a skill that is crucial for success in school life, cognitive growth, social development, and psychological development, particularly for AP. It is even possible to suggest that EF plays a vital role in preserving and calibrating the development of academic abilities and overall AP. There is a substantial body of research that demonstrates that emotional intelligence (EF) is trainable and has a strong and positive correlation with academic success, notably in the domains of mathematics and reading. Having said that, there was also a degree of confusion, for instance over whether EF is domain-general or domain-specific. In addition, there is a degree of doubt about the extent to which EF has an impact on academic accomplishment in relation to the level of schooling. Evidence suggests that EF was more strongly connected to academic success and advanced placement (AP) throughout the early stages of school. (Barbosa-Leiker, C. 2015).

However, it has also been stated that this is due to the fact that EF is not only trainable but also has the potential to be enhanced at any age via a variety of various ways. As a whole, the study and theoretical data presented above revealed that MM training might result in considerable increases in EF as a whole, which would ultimately lead to an increase in students' academic accomplishment and their performance in advanced placement. (Tasha L., 2016).

OBJECTIVE

1. To investigate how mindfulness exercises affect Indian schoolchildren's mental health, specifically in relation to stress, anxiety, emotional control, and general psychological wellness.
2. To evaluate the impact of mindfulness exercises on students' academic performance, focus, participation in class, and study techniques.

LITERATURE REVIEW:

Mindfulness, which has its origins in contemplative practices, has recently been popular in classrooms throughout the world as a way to improve children's health and performance in school. Focusing on the techniques, results, and implications of important studies performed by researchers from other nations on the application of mindfulness programs in school settings, this literature review explores the field's body of work.

In their meta-analysis, Zenner et al. (2014), compiled data from fifteen research that looked at the impact of mindfulness-based interventions (MBIs) on classroom performance. Students of all ages were included in the meta-analysis, which included a wide range of mindfulness programs. After taking part in mindfulness therapies, pupils' social-emotional and cognitive performance significantly improved. More specifically, people reported feeling less stressed, paying closer attention, and better able to control their emotions. The results of this research show strong evidence that MBIs have a beneficial effect on students' mental health.

Dariotis et al. (2017), examined the effectiveness of mindfulness programs in alleviating depressive and anxious symptoms in young people using a comprehensive review. Interventions in clinical settings and those using mindfulness programs in schools were also included in the evaluation. Mindfulness therapies were associated with decreased feelings of anxiety and depression in all of the research that were included. These results highlight the possibility of mindfulness training in helping school-aged children with mental health issues, which in turn may improve their general health.

Jennings and Greenberg (2009), studied the impact of professional development for educators on the ease and effectiveness of introducing mindfulness programs into classrooms. Researchers looked at how instructors felt about and used mindfulness training in the classroom via in-depth interviews. In order to establish a classroom climate that is suitable for mindfulness practice, the research found that instructors needed sufficient training and support. Teachers were already engaged in mindfulness activities when they reported personal advantages like less stress and more emotional resilience. In order to guarantee the successful implementation of mindfulness therapies, this research stresses the need of funding teacher training.

Meiklejohn et al. (2012), underlined the need of tailoring mindfulness training to the cultural backgrounds of students. The researchers found cultural adaptations to mindfulness therapies in different settings throughout the globe using a comprehensive study. According to their research, adaptations that were well-received by their intended audiences included elements of culturally appropriate language, behaviors, and content. The research also highlighted the significance of community stakeholders being included in adaptation efforts to guarantee cultural acceptability and sensitivity. Results like this show how important it is to take cultural factors into account when designing mindfulness programs for classrooms.

METHODOLOGY

Factors like as hefty workloads, performance expectations, time management challenges, and future worries contribute to the academic life's stress and anxiety. Students' emotional well-being, motivation, and academic achievement may be negatively affected by unmanaged academic anxiety. Navigating the emotional obstacles of academia requires effective emotion regulation.

Students' anxiety and emotional dysregulation may be effectively addressed via the practice of mindfulness, which has recently gained popularity. The practice of mindfulness involves training one's

mind and body to be fully present in the here and now, without judgment. Consistent practice may help one become more self-aware, less reactive to unpleasant emotions, and more adept at regulating their emotions in appropriate ways.

Examining the effects of mindfulness techniques on students' emotional control and academic anxiety is the primary goal of this research. The function of mindfulness in reducing academic anxiety and improving emotional health may be better understood by investigating the connections between these three factors. The results may help schools, mental health providers, and students put mindfulness-based programs into action, which in turn might improve students' health, happiness, and academic performance. Mindfulness as a coping mechanism for anxiety and emotional difficulties goes beyond the realm of academia, and this study may help shed light on it.

RESULT AND DISCUSSION

Future Directions for Research on Mindfulness Implementation in Schools

The long-term impact and sustainability of mindfulness treatments on students' well-being and academic results should be the focus of future study. This research should take the form of longitudinal studies. Strategies for maintaining mindfulness programs in schools may be informed by long-term follow-up evaluations that provide light on the long-term impacts of interventions.

Cultural Adjustment & Setting: We need further research on how to modify and contextualize mindfulness treatments so that they work in different cultural and educational settings, such as India's. Meiklejohn et al. (2012) recommend that in order to make mindfulness programs accessible and acceptable to diverse people, future research should look at culturally appropriate practices and ways of delivery.

Professional Development and Training for Teachers: More research on how these factors contribute to effective mindfulness program implementation in schools is needed. Investigating the appropriate training approaches and competences necessary for instructors to successfully conduct mindfulness treatments may aid in the fidelity and longevity of programs (Jennings & Greenberg, 2009).

Research in the future should focus on how to incorporate mindfulness techniques into educational policy and curricula. Lawmakers and educators may benefit greatly from research on the effects of institutional support, such financial backing and leadership endorsement, on the launch and maintenance of mindfulness programs (Felver et al., 2017).

Consequences for Target Groups: Students from underrepresented groups or those with special education needs should be among the groups whose unique impacts on mindfulness therapies should be the focus of future research. The specific difficulties and requirements of varied student populations may be better met by research on the effectiveness of mindfulness programs for these populations (Napoli et al., 2005).

Supporting Mindfulness Implementation in Schools: The importance of community participation and parental involvement should be investigated in research. Studying ways to include parents and caregivers in mindfulness practices might encourage cooperation between the home and school settings, which in turn can improve the efficacy of programs as a whole (Dariotis et al., 2017).

Therapies Based on Technology: In order to reach more students, future studies might look at mindfulness therapies that use technology, including apps for smartphones or websites. Scalable

methods for providing mindfulness training in varied school contexts may be found by investigating the feasibility and efficacy of technology-based techniques (Greenberg & Harris, 2012).

Research Across Cultures: To better understand the cultural uniqueness and universality of mindfulness practices, it would be beneficial to conduct comparative research across various cultural and educational contexts, including those in India and elsewhere. Culturally relevant strategies for introducing mindfulness into the classroom may be better informed by research on commonalities and variances in intervention results (Shapiro et al., 2011).

Consequently, studies that examine the incorporation of mindfulness into school curricula in the future should centre on questions such as how well they work over time, how different cultures perceive them, how parents are involved, how technology-based interventions differ, and how different populations fare. Researchers can better understand the role of mindfulness in the classroom and develop strategies to improve students' mental health and academic performance if they follow these lines of inquiry.

Educational Implication

The Ministry of Education (MoE) surveyed students from all 28 states and 8 UTs from January to March 2022 to learn more about their mental health in general and about specific areas. Results show that 29% of respondents struggle with concentration issues, 81% of those who suffer from anxiety do so because of schoolwork or test scores, 58% believe they get social support, and 39% find hope when faced with adversity. The Mind Up program integrates mindfulness with social and emotional learning activities to help students develop the most important skills for mental health: the ability to regulate their own emotions, pay close attention in class, and show empathy to others. This program has the potential to be a powerful tool when integrated into the teaching and learning process to support and enhance students' mental health.

CONCLUSION

Finally, this article summarizes the results of studies conducted in India and elsewhere that have examined the use of mindfulness training in educational contexts. Researchers from several countries have shown that mindfulness treatments improve students' mental health, academic achievement, and teacher preparation. Similarly, studies carried out by academics in India have shown that mindfulness activities may improve students' mental health and performance in the classroom. Research in the future should centre on answering important questions about: how mindfulness interventions work in the long run, how to adapt them to different cultures, how to train and develop teachers, how to incorporate them into school policies and curricula, how they affect certain populations, how to involve parents and communities, how to use technology to help, and how to compare different cultures. Scholars can improve our knowledge of mindfulness in the classroom and develop strategies to support students' emotional health and academic achievement across a range of cultural and pedagogical settings by focusing on these areas of future study.

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